

manage for the first time to bring together a kind of community training, team training ... I like this very much". Crews are able to exercise the whole year round, under freely selected conditions, and irrespective of the otherwise mandatory availability of staff and equipment, and training areas.

The Main and the Weser rivers are used as a basis for the virtual exercise areas. The trainer covers driving practice on land and water including coupling manoeuvres, building bridge stumps and ferrying operations with large ferries. And, of course, instructors can control exercise conditions by changing the variable parameters (e. g. wind, weather, water velocity, technical and tactical incidents).

The training scene is presented to the trainees through three top monitors giving a 120° field of view. A lower monitor shows the control and handling functions of the vehicle. Trainees control the program with the help of the mouse, keyboard and external devices that are also used for the control of the original system. The commander gives hand signals by means of data gloves and a tracking system, which are presented to the trainees through an avatar – an animated character in their virtual world.

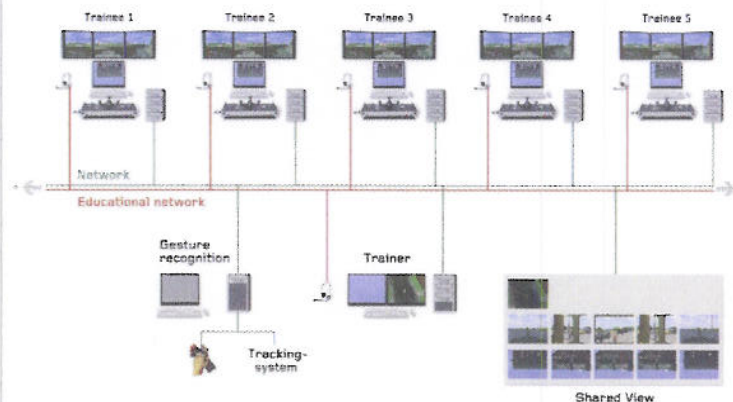
Ray Sono AG was the project manager and designer of the solution and continues to advance the cause of Virtual Reality Team Trainers and similar applications.

SHORT NOTES

PEO STRI's Blake Named Head of Army M&S Contracting Activity

In yet another move that even further advances the expanding role of the US Army's Program Executive Office for Simulation, Training and Instrumentation (PEO STRI), James Blake, PEO STRI Chief Executive Officer, was recently named the Head of Contracting Activity (HCA) for the Army's simulation, training and instrumentation programs. Earlier this year, PEO STRI was named the acquisition authority for all Army Training Aids, Devices, Simulators and Simulations (TADSS). The combination of these events places PEO STRI in the clear leadership role for the Army's simulation and training technology efforts. The authorization for both roles was given by Claude Bolton, Assistant Secretary for Acquisition, Logistics and Technology.

Before PEO STRI received HCA authority, all of its contacts were solicited under the Naval Air Warfare Center Training Systems Division in Orlando. The two military training organizations share the same facilities and other resources in that city's Research Park. Now, PEO STRI can support contracts that are beyond the scope of the Navy's mission. What this means is that although PEO STRI has supported other Department of Defense agencies in the past, this role will also expand under the new HCA authority.



Virtual Reality Team Trainer

Image credit: Ray Sono

"The HCA authority will give us an enhanced capability to support the warfighters," Blake said. "It also allows the Army to formally recognize the two billion dollars in contracting activity that takes place here in Orlando, and it allows us to control our own destiny in terms of customer support."

Given recent developments, one might expect that contracting activity amount to increase soon, as well as the number of PEO STRI personnel. While no one is speaking actual numbers at this time, as Tom Blake is concerned, "having the HCA authority will allow us to increase our effectiveness as the Army's leader in simulation and training technology."

PEO STRI Army TADDS Acquisition

In a recent major shift of policy that greatly expands its role providing training solutions for the US Army, the service's Program Executive Office for Simulation, Training and Instrumentation (PEO STRI) will now be the acquisition authority for all Army Training Aids, Devices, Simulators and Simulations (TADSS).

In the past, many Army weapons system and other commands have voluntarily requested and enlisted PEO STRI's assistance in developing and procuring their training solutions. The Orlando, Florida-based training PEO also has many Army command and division "customers" that it routinely supports, and the agency also has been soliciting new customers through its outreach and business development programs. While such efforts will continue, all of the Army must now work with PEO STRI for its TADSS training needs.

The policy shift was announced late last year, and the PEO is in the process of gearing up for its new responsibilities as the Army's acquisition center of excellence for training, since a

major increase in its workload is anticipated. Claude Bolton, Jr., Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA-ALT) made the change public December 11.

"As the U.S. Army's acquisition center of excellence for training and testing enablers, I expect PEO STRI to work with all program executive officers (PEOs) and program managers (PMs) as they ensure effective and cost-efficient execution of TADSS acquisition programs," Bolton wrote in the December memorandum. "My objective is to achieve greater efficiencies across the entire Army TADSS investments and ensure we are enabling US Army training strategies that meet the needs of existing systems and emerging network-enabled systems."

According to PEO STRI sources, the Bolton TADSS memorandum was initiated "to better execute the limited resources available to the training domain." The training organization pointed out several initiatives, including the Common Gunnery Architecture and Common Driver Trainer, as examples of how PEO STRI could potentially reduce training costs while increasing the performance of training solutions. While Army system offices and managers can still maintain responsibility for the procurement and lifecycle management of their TADSS, they have been "strongly encouraged to coordinate their acquisition strategy with PEO STRI to guarantee conformity with the training and network environments."

"(The new policy) will allow the Army to maximize the training infrastructure investments in both the Equipping and Training Program Evaluation Groups," said Joe Giunta, Jr., the strategic integrator for the new training acquisition initiative for PEO STRI. "This also means we will now be able to leverage our mission programs both technically and from a programmatic perspective to gain the maximum efficiencies possible for all Army training requirements."

PEO STRI's Customer Support Group and Business Operations Office will lead the initial

implementation process. This team, also comprised of members from each PM within the training organization and other essential staff, formulated their preliminary implementation schedule in January.

"The (new training acquisition) policy is only as good as the implementation process we put in place over the next few months, Giunta said. "We need to institutionalize our role as the subject-matter expert with our sister PEOs and PMs, or they will continue to do business as they have always done it."

In order to amend the current procedure for procuring training devices, PEO STRI will work with Army commands and divisions to develop the strategy and partnerships needed to implement the policy. "This policy has officially opened the door for us now to educate the other PEOs on what we bring to them in terms of program, technical and financial value," Giunta summed up.

Qualis Robotics Systems Support

The U.S. Army's Program Executive Office for Simulation, Training, and Instrumentation (PEO STRI) awarded Qualis Corporation a contract for the support training and program sustainment of the Robotic Systems Joint Project Office (RSJPO). The contract, initially worth \$8 million, could amount to \$48 million if all options are exercised over the four-year timeframe. PEO STRI procures robotic systems on behalf of RSJPO.

"RSJPO was familiar with PEO STRI based on past business relationships and was seeking an acquisition center that had the capacity and desire to accept new requirements and rapidly turn those requirements into contract actions," said Duane St. Peter, PEO STRI contract specialist for robotic systems. "PEO STRI accepted the challenge and has since awarded more than \$100 million in contracts in direct support of the RSJPO."

Under the Indefinite Delivery Indefinite Quantity for the Army and Marine Corps, the contract provides joint program management and technical support for the robotic systems and related lifecycle logistics and acquisition.

Support will include, but is not limited to, engineering and technical assessments, tradeoff analysis, logistics analyses and product support of management functions. This support is currently slated for the RSJPO office in Huntsville Ala., and the Iraqi and Afghani repair facilities.

"Continued growth is expected as more line units are requesting robots to support their missions. New requirements are frequently generated due to rapidly changing tactics, techniques and procedures. As the number of fielded systems grows, the logistical support required will increase as well," St. Peter said.

HMMWV Egress Assistance Trainer

The US Army demonstrated the new Army HMMWV Egress Assistance Trainer (HEAT) during the AUSA Winter Symposium and Exhibition held March 7-9 in Fort Lauderdale, Fla. HEAT will be used to train soldiers to egress the HMMWV in emergency situations.

The US Army's Program Executive Office for Simulation, Training and Instrumentation (PEO STRI), in a joint effort with PEO Combat Support and Combat Service Support (CS & CSS), engineering assistance from the Research, Development and Engineering Command's (RDECOM) Tank Automotive Research, Development and Engineering Center (TARDEC) and manufacturing capability at Red River Army Depot, rapidly developed and tested HEAT after receiving an Operational Needs Statement from the Army Forces Command.

HEAT's unique capability to rotate and stop in various positions makes it the only Army device that will allow soldiers to be trained on an array of egress techniques. Fifty-three HEAT trainers are set to be manufactured by Red River Army Depot to be utilized throughout the Army.

Cubic EST 2000 Expansion

Cubic Corporation has received in excess of \$24 million in contracts for its Engagement Skills Trainer 2000 (EST 2000) training system and other defense training systems. The US Army's PEO STRI ordered the EST 2000 systems.

Validated by the U.S. Army Infantry School, EST 2000 teaches marksmanship skills, squad-level collective defense and judgmental 'shoot-don't shoot' tactics. The system trains soldiers in the use of small arms, as well as the 50-caliber M-2 machine gun and the 40mm Mark-19 grenade launcher.

The enhanced Warrior Skills version of EST 2000 allows mounted or dismounted soldiers to engage enemy targets as they move through a virtual urban environment that replicates current combat conditions and includes simulated improvised explosive devices (IEDs).

Under the awards, Cubic's Simulation Systems Division, based in Orlando, Florida, will produce and manufacture the complete small arms training systems, which include more realistic weapons. Cubic will also produce driver components for the LAV 25 Advanced Gunnery Training System (AGTS) as a subcontractor to Lockheed Martin, prime contractor for the virtual trainer, which is used by the US Marine Corps for combat gunnery training for light armored vehicle crews.

Tec-Masters MILES Contract

PEO STRI has awarded Tec-Masters, Inc. with the Multiple Integrated Laser Engagement Systems (MILES) Combat Vehicle System (CVS) contract worth more than \$35 million if all options are exercised.

"The new MILES CVS system is lighter, easier to install, simpler for the crew to operate, and allows crews to engage targets using normal gunnery techniques," said Lt. Col. Chris Oliver, Product Manager for Live Training Systems. "Besides the necessary interfacing to the vehicle, the entire system is wireless."

Live MILES CVS will replace older MILES equipment currently used in the Army's force-on-force training exercises. The new rendition provides better training fidelity for combat vehicle systems, namely the Abrams tank and the Bradley fighting vehicle. MILES CVS utilizes One Tactical Engagement Simulation System (OneTESS) technology, while providing an advanced training capability, reduced life cycle support costs and more realistic simulation technology for combat vehicle systems.

SAIC Command Training Center Contract

Science Applications International Corporation won a single-award contract from the Army Contracting Agency to operate and maintain the Battle

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Short Finals

Saab Training UK Contract

Saab Training Systems, Sweden, has received a simulator contract from the UK MoD for a new anti-structure munitions (ASM) including an initial support package. The total contract is valued more than £1 Million. The weapon simulator system, a new application, will allow the UK Army to conduct realistic tactical training on individual and collective level in built-up areas.

Included equipment detects and evaluates effects within the structures being fired at. The new system can be integrated in the Saab training equipment already delivered and in service in the UK. Development and deliveries of eighty systems will take place during 2007 and 2008.

RUAG Delivery of Piranha Firing Simulator

RUAG has delivered the last of a total of 288 simulators to its contract partner amarisuisse, the defence procurement agency of the Swiss Ministry of Defence.

The laser-based firing simulators LASSIM RadSpz 93 simulates the 12.7 mm heavy machine gun of the RadSpz 93 / Piranha 8x8, the light armoured vehicle (LAV) used by the Swiss Armed Forces.

The simulator is employed in basic firing training and in combat training. It is interoperable with other simulators and used at the combat training centres of the Swiss Armed Forces. The contract covered the production of LASSIM, and the deliveries of additional training equipment such as analysis computers and field observer controller devices. Following preparations for series production, the first simulators rolled off the line at the beginning of the second quarter of 2005.

The deliveries have now been completed on schedule in a total of ten batches. This contract was the largest ever in the history of RUAG Electronics. It was executed together with RUAG COEL, a company that became part of the RUAG Group a year ago.

First L-159T1 for CzAF

AERO Vodochody a.s., has finished the assembly of the first of four two-seat training L-159T1 aircraft for the Czech Air Force (CzAF). The assembly comprises of complete equipment with all devices and primary verification of some of its systems.

"The maiden flight is planned for March 2007. Development, certification and operation-evaluation tests will follow, and at the end of 2007, all four two-seat



Link's trailer-based AVCATT suites.

Image credit: L-3 Link Simulation & Training

Command Training Center (BCTC) at Fort Lewis, Washington. The cost-plus-fixed-fee contract has a nine-month base period and four one-year options, and a ceiling value of \$39.8 million, if the customer exercises all options. SAIC's team includes subcontractor Cubic Applications Inc.

Through the contract, the SAIC-led team will provide live, virtual and constructive simulation-based battle command training to 1 Corps Stryker Brigades preparing to deploy to Iraq and Afghanistan. The team will provide mission support activities to deployed units through a combination of secure voice and video-teleconferencing technology. Lastly, the team will assist in the identification and distribution of critical lessons learned from units both in the field and returning from overseas.

Link AVCATT award

L-3 Communications Link Simulation and Training (L-3 Link) division has been awarded a \$51.1 million follow-on production contract to build five additional U.S. Army Aviation Combined Arms Tactical Trainer (AVCATT) suites. This award, which calls for L-3 Link to build AVCATT suites 16 through 20, increases total program value to \$347.6 million. This new order calls for L-3 Link to deliver the first four AVCATT suites to U.S. Army Reserve Component training sites, with the fifth AVCATT trainer being delivered to a joint use active Army/Reserve Component installation. The first of these newly ordered AVCATT suites is scheduled to be delivered in December 2007, with individual follow-on installations occurring every two months.

Each AVCATT suite consists of two mobile

53-foot trailers that house six reconfigurable simulators, a battle master control room and an after-action review theater. The simulators can be reconfigured to represent any combination of AH-64D, AH-64A, OH-58D, UH-60A/L and CH-47D platforms.

Link F/A-18 Training Support Contract

L-3 Link Simulation and Training has won a contract to provide support for US Navy and Marine Corps F/A-18 training assets at military bases in the United States and Japan. The F/A-18 Contractor Operations and Maintenance Services contract, awarded by the Naval Air Systems Command's Naval Air Warfare Center Training System Division, has four one-year options.

At contract start, F/A-18 training devices supported by L-3 Link will include five weapons tactics trainers, three distributed mission trainer suites with mission observation centers and brief/debrief systems, 10 tactical operational flight trainers, two aircrew flight trainers, three operational flight trainers, two part task trainers, three computer based training suites and a range of audio-visual and related training aids. These devices support training for the Hornet C/D and Super Hornet's E/F aircraft.

Collectively, these devices are used to train pilots in cockpit and emergency procedures, takeoffs and landings, air-to-air and air-to-ground combat, and electronic countermeasures. Upgrades to Hornet and Super Hornet training equipment will continue over the program's five-year contract period.

The new contract will see training increase in multi-ship exercises conducted within a distributed mission trainer suite at an individual site as well as networked simulation between sites, including other U.S. military services and allied forces. This trend commenced in 2006 with the Fleet Synthetic Training efforts that demonstrated integration across multiple platforms and locations.

Spatial Awareness Training

SDS International has been awarded a contract to deliver its next-generation Spatial Awareness Training System (SPATS) for use in US Navy and Marine Corps aviation physiology training. The award marks SDS' successful transition of the technology from the Phase II development stage of a Small Business Innovative Research (SBIR) grant by SDS International's Advanced Technologies Division in Orlando, Florida to the Phase III commercialization stage delivery of operational training capabilities. These capabilities allow students to recognize, avoid, and recover from key spatial disorientation (SD) situations associated with fixed-wing and rotary-wing flight operations.

The SPATS delivery under this contract will include interactive SD courseware to support indoctrination training for aeromedical students and initial annual fleet training of flight person-